

REMARKS

Status of the Claims

Claims 1-21 are pending, with Claims 1 and 11 being independent. Claims 1, 4-7, 11, and 14-16 have been amended for reasons unrelated to patentability to improve their form.

Requested Action

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Allowable Subject Matter

Applicant gratefully acknowledges the indication that Claims 7, 9, 10, 17, 19, and 20 contain allowable subject matter and would be allowed if redrafted in independent form including all of the limitations of the base claim and any intervening claims from which they depend. Applicant has not so redrafted these claims because the independent claims from which they depend are believed to be allowable for the reasons discussed below.

Rejections

Claims 1-3, 8, 11-14, 18, and 21 were rejected under 35 U.S.C. § 102(e), as being anticipated by the patent to Yoshimoto et al. (U.S. Patent No. 5,251,194). Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the patent to Sakamoto et al. (U.S. Patent No. 6,606,284). In addition, Claims 4-6, 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the patent to Yoshimoto et al. in view of the art discussed in

paragraphs [0011] and [0012] of the specification and shown in Figures 7 and 8 of the present application.

Response to Rejections

These rejections are respectfully traversed for the following reasons.

Amended independent Claim 1 relates to an optical information reproducing apparatus for recording or reproducing information by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of an optical spot . The apparatus comprises a circuit configured to control rotation of the optical disk, and a focusing servo control circuit and a tracking servo control circuit for the optical spot.

Claim 1 has been amended to recite that the apparatus also comprises a circuit configured to adjust a servo-loop gain of tracking servo control in accordance with the change of the rotation frequency.

Independent Claim 11 relates to an optical information reproducing apparatus for recording or reproducing information using an optical spot by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of the optical spot. The apparatus comprises a circuit configured to control rotation of the optical disk, and a focusing servo control circuit and a tracking servo control circuit for the optical spot.

Claim 11 has been amended to recite a circuit configured to adjust a servo-loop gain of focus servo control in accordance with the change of the rotation frequency.

By this arrangement, noise and unnecessary power consumption is reduced.

In contrast, the patent to Yoshimoto et al. is understood to relate to the problem of stabilizing tracking servo control, which is difficult to control because the tracking offset or the amplitude of the tracking error signal varies in accordance with the radial direction of a disk. To solve this problem, this patent is understood to propose that a region of the disk is divided into a plurality of regions in a radial direction, and the offset or a sensor gain is adjusted properly in each region. (See the col. 13, line 65 - col. 14, line 10.). In other words, the sensor gain is understood to be adjusted to suppress the fluctuation of the amplitude of the tracking error signal among different regions of the disk, i.e., the adjustment is understood to suppress a fluctuation of the servo-loop gain in any region of the disk. In addition, this patent is understood to be silent on the rotation control of the disk. Therefore, this patent is not understood to relate to an optical information reproducing apparatus for recording or reproducing information by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of an optical spot, comprising a circuit configured to control rotation of the optical disk, and a circuit configured to adjust a servo-loop gain of tracking servo control in accordance with the change of the rotation frequency, as recited by Claim 1. And, this patent is also not understood to relate to an optical information reproducing apparatus for recording or reproducing information using an optical spot by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of the optical spot, comprising a circuit configured to control rotation of the optical disk, and a circuit configured to adjust a

servo-loop gain of focus servo control in accordance with the change of the rotation frequency, as recited by Claim 11.

Since the Yoshimoto et al. patent is not understood to disclose or suggest at least one feature of amended Claims 1 and 11, Applicant respectfully requests that the rejection of these claims over this patent be withdrawn.

The dependent claims are allowable for the reasons given for the independent claims are recite features that are patentable in their own right. Individual consideration of the dependent claims is respectfully solicited.

Conclusion

In view of the above amendments and remarks, the application is now in allowable form. Therefore, early passage to issue is respectfully solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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